



Technical Appendix 12.1

Outline Construction Traffic Management Plan

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Figure 10.1.1: Indicative Site Access Layout

Figure 10.1.2: Abnormal Load Route



1 Background

1.1 Proposed Development

1. The proposed Development is a renewable energy development that intends to make use of available renewable energy technologies to maximise and optimise the renewable energy potential of the Site. For this consent application, SPR intends to construct a variety of renewable energy technologies, including 13 three-bladed horizontal axis wind turbines up to 180 m to blade tip, with a rated output of around 78 megawatts (MW) and ground mounted solar arrays of around 5 MW, producing a combined output of around 83 MW or between 230 - 280 GWh of electricity annually. A battery energy storage system (BESS) of around 25 MW would also be installed to store generated renewable energy and provide flexible management of energy delivery and ancillary support services to the National Grid.

2. On-site access tracks have been designed to use existing tracks as far as possible; whilst minimising cut and fill requirements in order to reduce the amount of ground disturbance, amount of material required for construction, loss of sensitive habitats and landscape and visual effects, particularly during construction. The proposed Development includes:
 - 13 wind turbines, up to 180 m to blade tip, including foundations and aviation lighting;
 - Ground mounted solar arrays;
 - BESS units;
 - Crane hardstandings for wind turbine installation;
 - Transformer/switchgear housings located adjacent to turbines & solar arrays;
 - New (10.4km) and upgraded (12.9 km) access tracks including watercourse crossings where necessary, passing places and turning heads;
 - Underground electrical cabling;
 - Compound containing substation, control building and BESS;
 - One main site construction and maintenance compound and a security compound;
 - A permanent lattice construction meteorological mast, up to 105 m high;
 - Health & safety and other directional site signage;
 - Search areas for up to three new borrow pit areas; and
 - Additional development components to improve the overall ecological, environmental and social benefits accruing from the proposed Development, as follows:
 - Ecological and environmental: peatland restoration; habitat improvement; native woodland planting
 - Social: proposed new walking bothy and stone seating on the Kintyre Way; circular walking route and viewpoint near Tarbert.

2 Introduction

2.1 Purpose and Scope

3. This outline Construction Traffic Management Plan (CTMP) provides information to the Argyll & Bute Council (A&BC) and Transport Scotland (TS) in regard to the management of all the construction traffic related to the proposed Development, with particular reference to environmental safeguards and mitigation required to address impacts identified in the Environmental Impact Assessment (EIA) Report. **Chapter 12** of the EIA Report has been referenced where relevant.
4. The purpose of the outline CTMP is to set out the areas for consideration when preparing the programme of works and when undertaking the Site construction. It would be used during the construction phase of the development and updated as necessary, acting as a 'live' document to ensure it is always current. Where the document is updated it will clearly be noted as a variation.

2.2 Key Considerations

5. This CTMP is the first stage of the requirement to manage and control all related traffic activity during the construction phase of the Development. This CTMP contains the following information outlined in **Table 1** below:

Table 1: Key CTMP Topics

Section	Topic
2	Introduction
3	Construction
4	Mitigation Measures
5	Complaints and Enquiries Procedure
6	Summary and Closure

7. The principal mitigation measures that the CTMP will cover may be summarised as follows:
 - methods for accessing the Site;
 - site access improvements;
 - contractor responsibilities;
 - abnormal load management;
 - on-site management;
 - adverse weather conditions; and
 - driving and speed restrictions.

3 Site Construction

3.1 Programme

8. It is anticipated that the proposed Development would be constructed over a period of approximately 24 months.
9. It is anticipated that construction is likely to begin in the first quarter of 2024. The main construction works will be undertaken during months 3 to 12. The final two months of the construction programme would comprise a Wind Turbine Reliability Run and snagging followed by take-over activities.

Activities will include:

- off-site highway works;
- site establishment (construction compounds);
- forestry felling and export;
- construction of access tracks and crane pads;
- turbine and solar foundation construction;
- substation civil and electrical works;
- cable delivery and installation;
- turbine delivery and erection;
- solar panel delivery and installation
- site Commissioning; and
- reinstatement/restoration.

3.2 Construction Staff

10. The number of people employed during the construction period would vary depending on the stage of construction and the activities ongoing on site.
11. It is anticipated that the peak workforce requirement would be 75 construction staff.

3.3 Hours of Working

12. The construction working hours for the proposed development would be 07:00 to 19:00 Monday to Friday and 07:00 to 16:00 on Saturdays. It should be noted that out of necessity some activity, for example abnormal load deliveries, during large concrete pours and also during the lifting of the turbine rotors, may need to occur outside the specified hours stated, although they would not be undertaken without prior approval from Transport Scotland, A&BC and Police Scotland.

3.4 Construction Access

13. It has been proposed that the existing junction on the A83(T) for the Tarbert Holiday Park would be upgraded and used for access by the construction, maintenance and workforce vehicles and the abnormal loads. A preliminary layout of the access is illustrated by **Figure 12.1.1 appended to this Draft CTMP**.
14. The Site currently comprises 12.9 km of existing track. Approximately 10.4 km of new onsite access tracks and approximately 12.9 km of upgraded track would be required to provide access to the wind turbines, control building compound, solar areas and construction compound.
15. The internal access tracks require several watercourse crossings, which are set out in **Chapter 10, Technical Appendix 10.4** of the EIA Report.

3.5 Construction Movements

3.5.1 HGV Movements

16. The maximum level of two-way trip generation would likely occur between months 6 to 13 of the 24-month programme, with a maximum of 174 HGVs when material would be imported for internal access track construction, the construction compound, turbine foundations and hardstandings and materials for the control buildings and substations. The case presented is a worst-case scenario and an unlikely one as it is expected that all materials with the exception of concrete would be extracted from the onsite borrow pits.

17. The routes for turbine components, which will arrive at Campbeltown Harbour is illustrated by **Figure 12.1.2** appended to this Draft CTMP, and described below:
- Loads would depart Campbeltown Harbour and turn right onto Hall Street before continuing onto Kinloch Road;
 - Loads would turn left onto the Aqualibrium Avenue and then right onto the A83; and
 - Loads would continue north on the A83 to the Proposed Site Access, where the loads would make a right turn into a modified Tarbert Holiday Park access junction.
18. Within the Site, loads would then proceed ahead to the turbine locations.

3.5.2 LGV Movements

19. Light vehicle trip generation would be a maximum of 300 two-way movements per day at the peak of construction, which will be distributed between the A83 north and A83 south, although likely to be much less with construction staff car sharing, as currently assumed single occupancy.

4 Mitigation Measures

4.1 Contractors

20. Contractors with experience of the nature of the construction works proposed and of this type of renewables development, would be appointed following a tendering process. ScottishPower Renewables would appoint an independent Environmental Clerk of Works (ECoW) who would liaise with the Contractor to ensure that all activities on site comply with appropriate construction methods, relevant planning conditions and protection of the environment. The ECoW would act as the first point of contact for any concerns.
21. All Contractors would be required to supply detailed method statements which would incorporate all planned mitigation methods. All Sub-Contractors are required to read, understand and adopt all procedures outlined within the final CTMP.
22. Sub-Contractors who formulate a CTMP for their work activity must issue it to the Principal Contractor for approval and acceptance prior to site issue. Any traffic management procedures required to secure a work area or safeguard Sub-Contractor operatives must be co-ordinated with the Principal Contractor (e.g. use of banksmen, operatives carrying out works roadside).
23. The Principal Contractor's Site Management must be informed of any planned site activity and movement of site traffic; the issue of this information must be received within a suitable and agreed timescale to allow co-ordination of other site activities.

4.2 Road Signs

24. Any signage required on the public highway would be erected and positioned in accordance with the requirements of the Traffic Signs Manual and Safety at Street Works and Road Works – A Code of Practice, and in consultation with A&BC and Transport Scotland.
25. Any permanent signs and street furniture which are required to be relocated to allow abnormal loads to pass shall be identified in consultation with TS, A&BC and through the trial run.
26. Warning signage on the Site must always be complied with. The two most important signs are “no entry” and “no unauthorised vehicles”. In order to proceed beyond these signs, vehicle drivers must stop and contact the ganger/ foreman in control of the area to be escorted through the local area.

4.3 Abnormal Indivisible Load Management

27. An Abnormal Loads Assessment would set out the key points and issues associated with the selected route for the abnormal loads, to verify that the route is feasible for the selected turbine delivery, subject to physical and operational mitigation works.
28. Detailed abnormal load delivery traffic management measures would need to be identified and included in the final CTMP (or provided as stand-alone report) setting out the mitigation required to address the potential issues the Abnormal Loads Assessment might identify.
29. Prior to the movement of abnormal loads, extensive public awareness is required to allow residents to plan and time their journeys to avoid disruption. The haulage Contractor shall remain responsible for obtaining all necessary permits from the relevant road and bridge authorities along the access route.
30. The movement of abnormal loads will be timed to avoid periods of heavy traffic flow to minimise disruption to the public. Specific timing restrictions imposed by the police or local authority have not been determined at this stage.
31. Through urban areas temporary parking restrictions may be necessary to guarantee a clear route for the abnormal loads, and these need to be arranged in advance through the appropriate local authority. The parking restrictions would need to be locally enforced.
32. Due to the size of vehicles required to transport these loads, escorts would be required for the entire route to control oncoming and conflicting traffic.

4.4 Adverse Weather Conditions

33. All works would be forward planned wherever practicable considering the forecast weather conditions. At the start of the day, the Site foreman would assess the weather conditions prior to permitting their operatives to access the Site.
34. Due to the location and topography of the Site the weather can be severe, resulting in an adverse effect on visibility, and will be constantly monitored and if necessary, all plant / vehicle movements would be stopped / suspended by the Site foreman if they deem it is unsafe for work to continue.
35. Contractors should contact the Principal Contractors general foreman to find out the situation at the Site prior to arrival to the Site, if required.
36. An example of how the day-to-day track conditions would be advised to all visitors is via a display board situated at the Site compound and the track condition would be rated as either:
- **Condition Red:** The access track is closed to all vehicular traffic;
 - **Condition Amber:** The access track is open to 4x4 vehicles only (operating in full 4x4) and is not suitable for delivery vehicles; and
 - **Condition Green:** The main Site access track is considered open to all permitted vehicles.
37. All Contractors would be required to make their own assessment of track conditions during access or egress from the Site and take appropriate action determined during their assessment. Over the course of the day, and in the event of weather conditions deteriorating, the Principal Contractor would notify the nominated personnel from the Contractors on site to the present condition.
38. Contractors would be reminded that they have a duty to consider the weather and track conditions throughout the day and take appropriate action to ensure their safety.

4.5 On-Site Management

4.5.1 On-Site Safety

39. All personnel entering the working area would wear hi-visibility vest or jacket, head protection, safety footwear at all times when out with the vehicle.
40. Everyone required to work within the Site would be made aware that they have a responsibility for the safety of themselves and others. All site operatives and visitors have a "duty of care" to themselves and others and need to be conscious of the surroundings and ongoing activities locally. In the event of an emergency, right of way to all emergency services would always be given. Emergency services and control of access would be carried out in compliance with the site emergency procedures.

4.5.2 Vehicle Parking

41. Vehicle parking areas located at the site construction compound would have safe and secure barriers to segregate all personnel from site plant and vehicle routes. All signage within designated car parking areas must be followed, with no vehicles parked in a way which restricts either vision or access. No parking whatsoever would be allowed on public roads; all cars that are directed to the site car park would be required to reverse park to comply with ScottishPower Renewables and the Principal Contractors requirements.

4.5.3 On-Site Tracks

42. Access tracks would be monitored daily to identify any deterioration of the track condition. Non-emergency remedial works to the track would be carried out at times outside peak times of usage and significant emergency repairs would be undertaken immediately and adjacent track sections would be restricted from use as required to safely accommodate works.

All routes would be monitored for dust and control or suppression methods would be deployed as appropriate using dust suppression systems.

4.5.4 Site Traffic

43. All traffic visiting the Site would be required to report to site security where they would obtain clear instructions, before further movement is acceptable. If applicable an induction would be completed, vehicle permits would be issued, and the site rules & emergency procedure would be explained.
44. All traffic would use the site passing places and all drivers would accommodate other track users in a courteous manner. Reversing (other than to park) within the compound areas would not be permitted.
45. Full time site traffic (vehicles/plant situated on-site for majority of construction phase) that requires re-fuelling would follow the instructions supplied at their induction and also the guidelines within their method statement for the works.
46. Heavy site traffic would be equipped with audible reversing warning with additional visual aids e.g. reversing cameras, mirrors utilised on all plant. All safety features must be inspected daily with faults immediately reported to the Foreman Fitter who would assess and repair any damage to the plant. Management would ensure that all loads are covered fully to limit the loss of material in transit.

4.5.5 Vehicle Cleaning

47. Given the length of the access track to and from the A83(T), it is likely that most loose materials will not be deposited onto the highway. Should there be evidence of this following the commencement of construction, suitable measures would be implemented within the Site to ensure materials are not transferred onto the highway, and road cleaning would take place if required to remove any deposits that are carried from the Site.

4.6 Driving and Speed Restrictions

48. All vehicles (cars, LGVs, HGVs and AILs) shall always be driven in a safe but defensive driving manner, within posted speed limits. A 3-strikes policy shall be adopted by all Contractors unless any breach is deemed to be of such a serious nature that warrants immediate dismissal from the Site.
49. All cars and drivers of site operative vehicles used for commuting to and from site must be road worthy and legally compliant. All commercial vehicles and drivers must be road worthy and legally compliant.

5 COMPLAINTS AND ENQUIRIES PROCEDURE

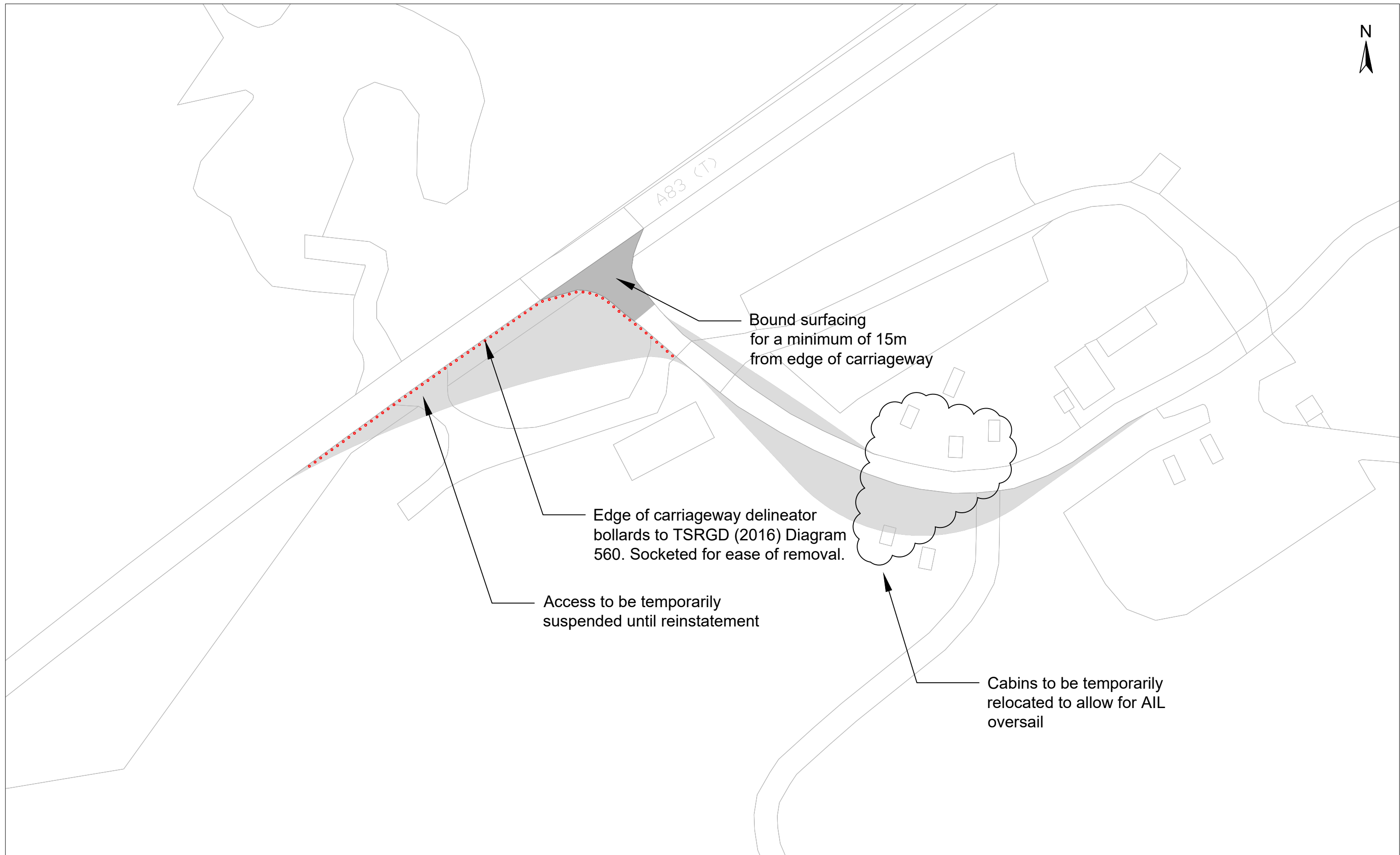
5.1 General

50. It is important that members of the public or interested parties can make valid complaints or enquiries about the transport elements of the construction works. Such complaints and enquiries can provide a valuable feedback mechanism which helps reduce potential impacts on sensitive features and would also allow the construction techniques to be refined and improved.
51. It is anticipated that the complaints and enquiries procedure can be made either directly to the Site Contractor or via A&BC and TS as applicable, who in turn would provide feedback to the Site Contractor.
52. All complaints and enquiries would be logged promptly by the Site Contractor and kept on site for review by A&BC upon request.

5.2 Checking and Corrective Action

53. As outlined above, it is intended for the CTMP to be a 'living document' which is updated periodically as and when required.
54. The Contractor would be responsible for establishing a programme of monitoring, the results of which shall be fed back for inclusion within the CTMP if necessary.
55. Any checking or corrective action required would also be monitored. This methodology would ensure that the construction activities are being undertaken in accordance with the CTMP and that the Contractors are held to account.
56. A procedure for addressing non-conformance/compliance and ensuring that corrective actions are undertaken is outlined below:
- completion of a Non-Conformance Report – this would record any traffic related incident and work that has not been carried out in accordance with the CTMP or Method Statement;
 - completion of a Corrective Action Report – this would record any identified deficiency as a result of monitoring, inspection, surveillance and valid complaint; and
 - action – any necessary actions identified as a result of the above would be allocated to a responsible person, along with a timescale for the action to be undertaken.
57. Records of the above would be retained by the Contractor throughout the construction process. The records would be maintained either in hard copy or electronically in such a manner that they are readily identifiable, retrievable and protected against damage, deterioration or loss.

6 Figures



Rev.	Date	By	Comment
B	03/11/2021	JH	Figure updated
A	18/10/2021	JH	First Issue

1:750
Scale @ A3

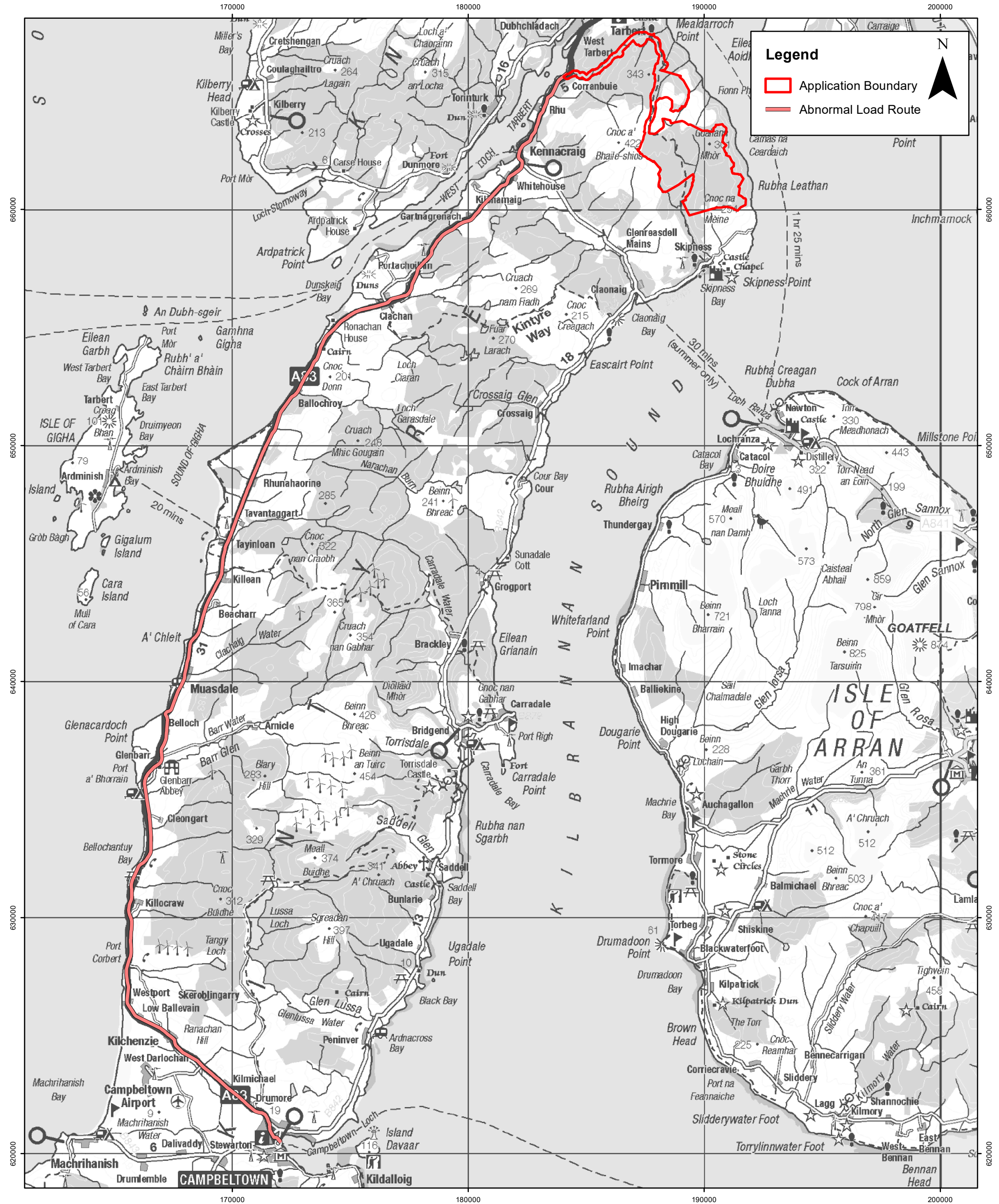
Legend

- Bound Surface
- Unbound Surface

EARRAGHAIL RENEWABLE ENERGY DEVELOPMENT

INDICATIVE SITE ACCESS LAYOUT

Drng No.	662817-10-03_RevB
Rev	B
Date	18/10/2021
Figure	12.1.1



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Earraghail Renewable Energy Development

Access, Traffic and Transport

Abnormal Load Route

Rev	Date	By	Comment
C	14/01/22	DL	Revised Site Boundary
B	26/11/21	DL	Revised Logo
A	03/11/21	DL	Abnormal Load Route

1:150,000 Scale @ A3

Figure	Date	Rev	Dwg No.	Datum: OSGB36
12.1.2	14/01/22	C	EHAIL-RSK-I-102	Projection: TM

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